

RESPONSE TO OFFICE ACTION
Appn. No. 10/597,022
Response Filed July 27, 2010

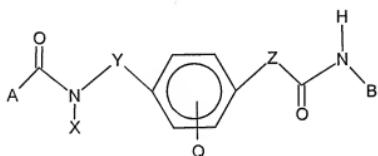
Attorney Docket No. 22727/04418

Amendments to the Claims

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of claims:

Claim 1. (Currently amended) A histone deacetylase inhibitor having the formula:



wherein:

X is chosen from H and CH₃;

Y is (CH₂)_n wherein n is 0-2;

Z is chosen from (CH₂)_m wherein m is 0-3 and (CH)₂;

A is an aliphatic group including having from 3 to 14 carbons;

B is *o*-aminophenyl or hydroxyl group; and

Q is a halogen, hydrogen, or methyl.

Claim 2. (Cancelled)

Claim 3. (Previously presented) The inhibitor according to claim 1, wherein the aliphatic group is branched.

Claims 4-5. (Cancelled)

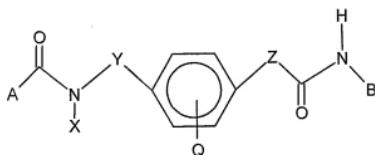
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Claim 6. **(Original)** The inhibitor according to claim 1, wherein B is *o*-aminophenyl.

Claim 7. **(Original)** The inhibitor according to claim 1, wherein B is hydroxyl.

Claim 8. **(Currently amended)** A histone deacetylase inhibitor having the formula:



wherein:

X is chosen from H and CH₃;

Y is (CH₂)_n, wherein n is 0;

Z is chosen from (CH₂)_m wherein m is 0-3 and (CH)₂;

A is an aromatic group including having from [[3]] 5 to 14 carbons, B is hydroxy, and Q

is hydrogen.

Claim 9. **(Currently amended)** A histone deacetylase inhibitor chosen from N-(2-Amino-phenyl)-4-[(2-propyl-pentanoylamino)-methyl]-benzamide; N-Hydroxy-4-[(2-propyl-pentanoylamino)-methyl]-benzamide; N-(2-Amino-phenyl)-4-(2-propyl-pentanoylamino)-benzamide; N-Hydroxy-4-(2-propyl-pentanoylamino)-benzamide; 2-Propyl-pentanoic acid {4-[(2-amino-phenylcarbamoyl)-methyl]-phenyl}-amide; 2-Propyl-pentanoic acid {4-[(2-amino-phenylcarbamoyl)-methyl]-phenyl}-amide; 2-Propyl-pentanoic acid {4-[(2-amino-

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phenylcarbamoyl)-ethyl]-phenyl}-amide; 2-Propyl-pentanoic acid [4-(2-hydroxycarbamoyl-ethyl)-phenyl]-amide; 2-Propyl-pentanoic acid {4-[2-(2-amino-phenylcarbamoyl)-vinyl]-phenyl}-amide; and 2-Propyl-pentanoic acid [4-(2-hydroxycarbamoyl-vinyl)-phenyl]-amide.

Claim 10. (Currently amended) A histone deacetylase inhibitor chosen from N-(2-Amino-phenyl)-4-(butyrylamino-methyl)-benzamide; N-(2-Amino-phenyl)-4-(phenylacetylaminomethyl)-benzamide; N-(2-Amino-phenyl)-4-[(4-phenyl-butyrylamino)-methyl]-benzamide; 4-(Butyrylamino-methyl)-N-hydroxy-benzamide; N-hydroxy-4-(phenylacetylaminomethyl)-benzamide; N-hydroxy-4-[(4-phenyl-butyrylamino)-methyl]-benzamide; 4-Butyrylamino-N-hydroxy-benzamide; N-hydroxy-4-phenylacetylaminobenzamide; N-hydroxy-4-(4-phenylbutyrylamino)-benzamide; and N-[4-(2-Hydroxycarbamoyl-ethyl)-phenyl]-butyramide.

Claim 11. (Currently amended) A histone deacetylase inhibitor chosen from N-hydroxy-3-(4-phenylacetylaminophenyl)-propionamide; N-[4-(2-Hydroxycarbamoyl-ethyl)-phenyl]-4-phenyl-butyramide; N-(2-Amino-phenyl)-4-[(2-phenyl-butyrylamino)-methyl]-benzamide; N-(2-Amino-phenyl)-4-[(3-phenyl-butyrylamino)-methyl]-benzamide; N-hydroxy-4-(2-phenylbutyrylamino)-benzamide; N-hydroxy-4-(3-phenylbutyrylamino)-benzamide; N-[4-(2-Hydroxycarbamoyl-ethyl)-phenyl]-2-phenyl-butyramide; N-[4-(2-Hydroxycarbamoyl-ethyl)-phenyl]-3-phenyl-butyramide; N-hydroxy-4-[(2-phenyl-butyrylamino)-methyl]-benzamide; and N-hydroxy-4-[(3-phenyl-butyrylamino)-methyl]-benzamide.

Claim 12. (Previously presented) A histone deacetylase inhibitor chosen from 4-Benzoylamino-N-hydroxy-benzamide; 4-(4-methyl)-Benzoylamino-N-hydroxy-benzamide; 4-(4-

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chloro)-Benzoylamino-N-hydroxy-benzamide; 4-(4-bromo)-Benzoylamino-N-hydroxy-benzamide; 4-(4-*tert*-butyl)-Benzoylamino-N-hydroxy-benzamide; 4-(4-phenyl)-Benzoylamino-N-hydroxy-benzamide; 4-(4-methoxyl)-Benzoylamino-N-hydroxy-benzamide; 4-(4-trifluoromethyl)-Benzoylamino-N-hydroxy-benzamide; 4-(4-nitro)-Benzoylamino-N-hydroxy-benzamide; and Pyridine-2-carboxylic acid (4-hydroxycarbamoyl-phenyl)-amide.

Claim 13. (Previously presented) A histone deacetylase inhibitor chosen from N-hydroxy-4-(2-methyl-2-phenyl-propionylamino)-benzamide; N-hydroxy-4-(3-methyl-2-phenylbutyrylamino)-benzamide; N-hydroxy-4-(3-phenyl-propionylamino)-benzamide; 4-(2,2-Dimethyl-4-phenyl-butyrylamino)-N-hydroxy-benzamide; N-hydroxy-4-[methyl-(4-phenylbutyryl)-amino]-benzamide; N-hydroxy-4-(2-phenyl-propionylamino)-benzamide; N-hydroxy-4-(2-methoxy-2-phenyl-acetyl-amino)-benzamide; 4-Diphenylacetyl-amino-N-hydroxy-benzamide; N-hydroxy-4-[2-(4-isobutyl-phenyl)-propionylamino]-benzamide; and N-(2-Amino-phenyl)-4-phenylacetyl-amino-benzamide.

Claim 14. (Previously presented) A histone deacetylase inhibitor chosen from N-(2-Amino-phenyl)-4-(5-phenyl-pentanoylamino)-benzamide; N-(2-Amino-phenyl)-4-(2-phenylbutyrylamino)-benzamide; N-(2-Amino-phenyl)-4-(2,2-dimethyl-4-phenyl-butyrylamino)-benzamide; N-(2-Amino-phenyl)-4-(3-phenyl-propionylamino)-benzamide; N-(2-Amino-phenyl)-4-(4-phenyl-butyrylamino)-benzamide; N-(2-Amino-phenyl)-4-(3-phenylbutyrylamino)-benzamide; N-(2-Amino-phenyl)-4-(3-methyl-2-phenyl-butyrylamino)-benzamide; N-(2-Amino-phenyl)-4-(2-methyl-2-phenyl-propionylamino)-benzamide; N-(2-

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Amino-phenyl)-4-[2-(4-isobutyl-phenyl)-propionylamino]-benzamide; and N-hydroxy-4-[2-(S)-phenylbutyrylamino]-benzamide.

Claim 15. (Previously presented) A histone deacetylase inhibitor chosen from N-hydroxy-4-[2-(R)-phenylbutyrylamino]-benzamide; N-[4-(2-Hydroxycarbamoyl-ethyl)-phenyl]-2-(S)-phenyl-butamide; N-[4-(2-Hydroxycarbamoyl-ethyl)-phenyl]-2-(R)-phenyl-butamide; N-hydroxy-4-(3-(S)-phenylbutyrylamino)-benzamide; N-hydroxy-4-(3-(R)-phenylbutyrylamino)-benzamide; N-hydroxy-4-[3-(S)-phenylbutyrylamino]-benzamide; and N-hydroxy-4-[3-(R)-phenylbutyrylamino]-benzamide.

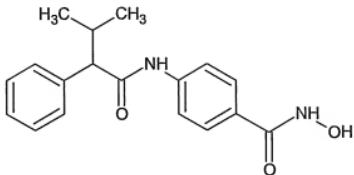
Claim 16. (Original) The inhibitor according to claim 1, wherein the inhibitor is an ester or salt.

Claim 17. (Original) A pharmaceutical composition comprising the inhibitor according to claim 1, and at least one pharmaceutically acceptable excipient.

Claims 18-19. (Cancelled)

Claim 20. (Original) The inhibitor according to claim 8, wherein m=0 and X=H.

Claim 21. (Previously presented) A histone deacetylase inhibitor having the structure:

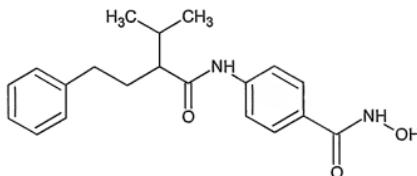


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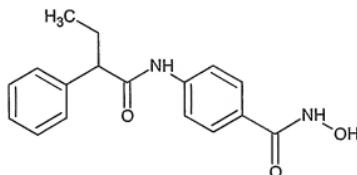
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and pharmaceutically acceptable salts thereof.

Claim 22. **(Original)** The inhibitor according to claim 20, wherein the compound is:



Claim 23. **(Original)** The inhibitor according to claim 20, wherein the compound is:



Claim 24. **(Original)** A composition comprising the inhibitor according to claim 21, wherein the composition is enriched in the S-stereoisomer as compared to the R-stereoisomer.

Claim 25. **(Cancelled)**